What is claimed is:

1. An assembled hematin comprising hematin deposited on an electrically charged substrate in one or more layers alternating with one or more layers of a polyelectrolyte.

2. The assembled hematin of Claim 1, wherein the polyelectrolyte is a cationic polymer.

3. The assembled hematin of Claim 2, wherein the cationic polymer is a poly(dialkyldiallylammonium salt) or a poly(trialkylallylammonium salt).

4. The assembled hematin of Claim 3 wherein the poly(dialkyldiallylammonium salt is poly(dimethyldiallylammonium chloride).

5. A method of forming an assembled hematin, the method comprising depositing one or more layers of hematin and one or more layers of a polyelectrolyte on an electronically charged substrate.

6. The method of Claim 5, wherein the polyelectrolyte is a cationic polymer.

7. The method of Claim 6, wherein the cationic polymer is a poly(dialkyldiallylammonium salt) or a poly(trialkylallylammonium salt).

8. The method of Claim 7, wherein the poly(dialkylallylammonium salt) is a poly(dimethyldiallylammonium chloride.)

9. A method of polymerizing an aromatic monomer, the method comprising contacting an aromatic monomer and a template with assembled hematin, wherein the assembled hematin comprises hematin deposited on an electrically charged substrate in one or more layers alternating with one or more layers of a polyelectrolyte, thereby polymerizing the aromatic monomer to form a complex of polymerized aromatic monomer and the template.

10. The method of Claim 9, wherein the template is an anionic polymer

11. The method of Claim 10, wherein the anionic polymer is polystyrene sulfonic acid or a salt thereof.

12. The method of Claim 9, wherein the aromatic monomer is a substituted or unsubstitute aromatic compound.

13. The method of Claim 12 wherein the aromatic compound is an aniline or a phenol.

13. The method of Claim 9, wherein the complex of a polymerized aromatic monomer and a template forms in solution.

14. The method of Claim 13, wherein the complex of a polymerized aromatic monomer and a template forms on the assembled hematin.

15. A method of polymerization of aniline, the method comprising:

preparing an aqueous solution containing aniline, sulfonated multi wall carbon nano tubes (MWCNT), syn-enzyme Hematin-Polyethylene glycol, and a reaction initiator, to provide a MWCNT sulfonate/polyaniline complex dispersed in water.

16. The method in accordance with claim 15 wherein the reaction initiator is hydrogen peroxide.

17. The method in accordance with claim 15 and comprising the further step of purifying the MWCNT sulfonate/polyaniline by dialysis thereof.

18. The method in accordance with claim 15 and comprising the further step of purifying the MWCNT sulfonate/polyaniline by centrifusion thereof.

19. A method for polymerization of 2-methoxy, 5-methylaniline, the method comprising:

preparing an aqueous solution containing 2-methoxy, 5-methylaniline, sulfonated multi wall carbon nano tubes (MWCNT), syn-enzyme Hematin-Polyethylene glycol, and a reaction initiator, to provide a MWCNT sulfonate/polyaniline complex dispersed in water.

20. The method in accordance with claim 19 wherein the reaction initiator is hydrogen peroxide.

21. The method in accordance with claim 19 and comprising the further step of purifying the MWCNT sulfonate/polyaniline by dialysis thereof.

22. The method in accordance with claim 19 and comprising the further step of purifying the MWCNT sulfonate/polyaniline by centrifusion thereof.

23. A method for polymerization of phenol monomer, the method comprising:

preparing an aqueous solution containing phenol monomer, sulfonated multi wall carbon nano tubes (MWCNT), syn-enzyme Hematin-Polyethylene glycol, and a reaction initiator, to provide a MWCNT sulfonate/polyphenol complex disposed in water.

24. The method in accordance with claim 23 wherein the reaction initiator is hydrogen peroxide.

25. The method in accordance with claim 23 and comprising the further step of purifying the MWCNT sulfonate/polyaniline by dialysis thereof.

26. The method in accordance with claim 23 and comprising the further step of purifying the MWCNT sulfonate/polyaniline by centrifusion thereof.